National Plant Data Center
Product Catalog
January 2005

National Plant Data Center

USDA Natural Resources Conservation Service

http://plants.usda.gov

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SHOWY MILKWEED
-Asclepias speciosa-
CLIFF SHELF TRAIL
D. DAVIDSON ©1999

National Plant Data Center Staff and Locations

Vision
The National Plant Data Center (NPDC) is recognized as a national and global leader in developing taxonomically-based databases and disseminating plant information and technology to assist in the conservation of our natural resources.

Mission
The NPDC provides leadership for the design, development, management, access, and marketing of Agency plant information, particularly through the PLANTS Web site. It focuses resources on plant data definition, collection, quality control, integration, interpretation, dissemination for the Natural Resources Conservation Service's use in conservation practices and automated tools. It partners internationally to acquire plant data and new technologies and provides a national standard for basic plant data.

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Supported Conservation Programs and Initiatives

The National Plant Data Center, in partnership with data contributors, supports the Natural Resources Conservation Service strategic plan, providing plant data and information for these agricultural and conservation programs and initiatives:

National Buffer Initiative

Grazing Lands Conservation Initiative

Farm Bill

Wetland Conservation Initiative

Animal Feeding Operations (AFO)

Grazing Lands Application (GLA)

Field Offices Technical Guide (FOTG)

Conservation Planning, Effects, & Inventory

Nutrient Management & Environmental Compliance

Natural Resources Inventory (NRI)

National Soils Information System (NASIS)

Ecological Site Information System (ESIS)

Erosion Prediction Models (RUSLE, WEPP)

Ecological Restoration & Bioengineering

Plant Materials Information System

Wetland Identification & Delineation

Limited Resource Client Assistance

Invasive Species Management

SEGO LILY
- Calochortus nuttallii -

ROUGH MULESEARS
Wyethia scabra
- ASTERACEAE -
SALT VALLEY
ARCHES N P
Donald Davidson ©2000

CANCER ROOT
or
CLUSTERED BROOMRAPE
Orobanche fasciculata
- OROBANCHACEAE -

AGATE FOSSIL BEDS NM
DONALD DAVIDSON ©2000

PLANTS Database Usage and Awards

PLANTS receives up to 18 million hits and serves over 500,000+ extended user sessions a month.

The award winning PLANTS Web site contains general information on all 43,000 U.S. plant and lichen species, plus expanded information on over 2,500 conservation plants.

PLANTS has received national awards from Harvard University and Government Executive magazine:

The Innovations in American Government Awards

Top 50
John F. Kennedy
School of Government
Harvard University
2004

GovExec.com
Best FEDS
on the web

How To Obtain Information

Plant information is available either directly through the PLANTS World Wide Web site on the Internet or through your local USDA Service Center or Natural Resources Conservation Service Field Office.

PLANTS Database
http://plants.usda.gov

Available Plant Information

Plants, soils, and climate demand sound resource data in order to address conservation needs. The PLANTS Web site provides basic information on all plants in the United States and more detailed information on 2500 conservation plants for use in decision-making by conservationists, community leaders, and other landowners.

All Plants

Plant Profile: Available for the 43,000 plants in PLANTS. Provides direct access to basic attribute data, such as: name, synonyms, distribution map (state level for all-including DC and PR/VI-and county level for forty-five of the states), family, growth habit, duration, Wetland Indicator Status, related Web sites, and U.S. nativity. It provides access to images, Fact Sheet, Plant Guide, or characteristics, if available. Thumbnail distribution maps are available for all species within each genus.

Conservation Plants

Plant Guides: Two to eight page documents addressing the use, description, propagation, establishment, production, and availability of a species. The guide also contains references for further inquiry. PLANTS currently has 500 guides online. Format: pdf or doc.

Plant Fact Sheets: One to two page documents informing the user about various species of conservation plants. Format: pdf or doc.

Plant Characteristics: View over 100 plant characteristics such as appearance, use in conservation and restoration, growth requirements, and suitability for conservation practices for 2,500 conservation plant species and cultivars.

Culturally Significant Plants

Plant Guides: Detailed document addressing key plant species of importance to the Native American culture. Format: pdf or doc.

Invasive Plant Species

State Noxious Plant Checklists: State legal lists integrated into PLANTS with links to more information.

Invasive Plant Checklists: A list of plants from various published sources for species with known invasive characteristics. Includes links to additional sources of information.

Links: General links to Web sites pertaining to weed management and control.

Federal & State Threatened & Endangered Species

Lists of threatened and endangered plants are integrated into PLANTS. View lists of currently accepted names and access further information, both on and off site, for the listed species.

Checklists

State Plant Checklists: Produce synonymized lists alphabetized by scientific or common name. The basic data are developed in cooperation with the Biota of North America Program.

Checklists by Family or Genus: Produce synonymized lists alphabetized by scientific or common name. The basic data are developed in cooperation with the Biota of North America Program.

Threatened & Endangered Plants: Provides lists of plants derived from U.S. Fish and Wildlife Service and State threatened and endangered plant data.

NWI Wetland Indicator Status Reports: Provides lists of plants, integrated into PLANTS, derived from the USFWS National List of Vascular Plant Species that Occur in Wetlands (1988).

Classification (Phylogenetic) Reports: The user can view a hierarchical report by selecting any level from genus to kingdom.

Images

Color Pictures: Visit the Photo Gallery to view thousands of images. Different sizes are available. You can also access images at each Plant Profile.

Line Drawings: Thousands of line drawings are on-line and more will be added as acquired.

Plant Prints: Each year the NPDC chooses a small grouping of images appropriate for framing. These are available for download at no cost. Use them at home or at the office.

Links

Throughout the PLANTS Web site, links to further information are accessible. Dedicated links to several high quality sites can be found at the Plant Profile. General links are accessible through the Links area of the top frame on the Home Page. These include Fire Resistant Landscaping, Bioremediation, and Wetland Restoration. Species specific links are accessible at the bottom of each Plant Profile, particularly for key weeds and conservation species.

Classification Report

This report displays a hierarchical classification and allows the user to search for closely related species. This is accessible from the PLANTS Home Page a Plant Profile.

PLANTS Advanced Query

This enables users to search PLANTS using any plant attribute contained in the database, then display or download the information. It also enables the user to produce a list of key conservation plants meeting specific criteria.

PLANTS Database
http://plants.usda.gov

Gateway to Other Modules

Creating Vegetative Designs

VegSpec

VegSpec: A web-based decision support system that assists land managers in the planning and design of vegetative establishment practices.

Distribution Update: The NPDC, in cooperation with the USDA Animal & Plant Health Inspection Service Raleigh Plant Protection Center, developed a module within PLANTS that permits users to submit new state/county distribution records for consideration. The thrust of this effort is to provide a central clearinghouse for new weed distribution data for a more complete national view.

PLANTS Database　　LECA8
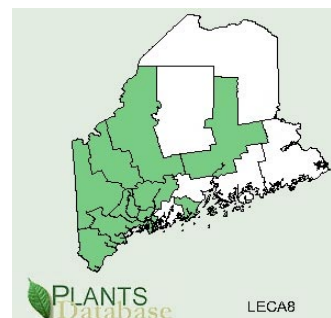
Crop Nutrient Tool: This tool provides estimates of nutrient (N, P, K) removal by crops. These estimates are used to calculate nutrient balance sheets, which are employed in the design of animal waste management systems. The crop nutrient uptake module automates and augments the information that is currently in Chapter 6 of the NRCS Agricultural Waste Management Field Handbook.

Ecological Site Information System: ESIS is the repository for collected forestland and rangeland plot data and the development of ecological site descriptions.

Plant Materials Information: This provides access to plant materials information and technology, plus contact information for the USDA Plant Materials Centers and specialists located across the U.S. and its territories. Search indexed Plant Materials publications for information on planting, production, management, maintaining, and utilizing plant species for natural resource conservation, buffers, forage, wildlife habitat, restoration, erosion control, water quality, and nutrient management.

Plant Materials Program

Grazing and Spatial Analysis Tool (GSAT): This is a PC-based decision support tool for managing grazing lands. The PLANTS download area connects users to GSAT state plant lists including plant symbols, scientific names, and preferred state common names for use in GSAT applications.

Alternative Crops: A list of crops and links to cultivation and marketing information across the Web. This resource is extremely helpful to field staff in providing assistance to limited resource farmers.

Information Under Development

Plant Identification

This is a Windows-based tool assisting field staff and the public in identifying vascular plants. It is called a "polyclave or random-access key." Users tag plant characteristics (ex. woody, 3 meters high, alternate leaves, etc.) and as they are selected, the data set reduces to identify the target plant in fewer than ten clicks of the mouse. Species descriptions, images, and help screens assist users.

·Identification of Louisiana Grasses and Grass-like plants: Developed in partnership with the NRCS Louisiana State Office and the University of Louisiana-Monroe.

·Wetland Plants of the Continental United States: The alpha version encompasses about 4,000 wetland plants. Original data were developed in partnership with the Biota of North America Program, U.S. Fish & Wildlife Service, NRCS Wetland Science Institute, Army Corps of Engineers, Environmental Protection Agency, U.S. Geological Survey Biological Resources Division, Northeast Louisiana University, and others.

PLANTS Redesign

We are currently redesigning the database underlying PLANTS to meet the needs of today and the future. Multiple common names and faster processing are several of the items being addressed.

Pollinator-Plant Host Module

This module, developed in cooperation with the University of Maryland, will provide pollination ecological information for vascular U.S. plants for use in land conservation, habitat restoration, and agricultural production. It will serve as a guide for practiononers in implementing pollinator-friendly agriculture and conservation.

Wildlife Suitability Ratings

This project will standardize, compile, and improve wildlife habitat suitability ratings for U.S. plant species. The information is being developed in cooperation with Clemson University.
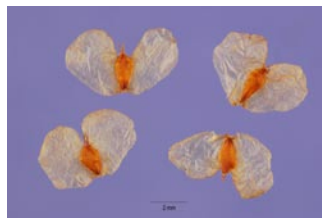
Images

Additional images are being integrated. The USDA Agricultural Research Service Systematic Botany and Mycology Lab is currently digitizing 7,000 seed images from the U.S. National Seed Herbarium for integration. Users are invited to contribute slide sets to the NPDC for digitizing. More information on image contributions can be found on the PLANTS Home Page, click on FAQs on the green navigation bar and then Intellectual Property.

Phytoremediation Information

This is a list of and a collection of associated information on plant species utilized in phytoremediation. This information will assist conservationists in selecting buffer species for nutrient management or economically restoring brown fields. It is being developed in cooperation with the University of Kansas.

Pacific Basin Checklist

In association with the Smithsonian Institution- Department of Botany and the Bishop Museum, the National Plant Data Center will integrate a Pacific Basin checklist into PLANTS. Expected early 2005.

Plants Useful for Carbon Sequestration

The University of Kansas in cooperation with the NPDC is compiling a list of plants by their ability to accumulate carbon (carbon sequestration). This information will be used as an evaluation tool in selecting appropriate plants for conservation practice applications.